ECE-345-001 (Fall 2020)

Review Test Submission: Quiz 4.2

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Course	Intro to Control Systems - Fall 2020 Section Group I67
Test	Quiz 4.2
Started	9/15/20 8:34 AM
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Status	Completed
Attempt Score	4 out of 4 points
Time Elapsed	2 minutes
Results Displayed	Submitted Answers, Incorrectly Answered Questions

Question 1

1 out of 1 points

True or false?

The poles of the transfer function $G(s)$ are the same as the eigenvalues of the system matrix A.

Selected Answer: True

Question 2

1 out of 1 points

Which of the following correctly describe the characteristic equation? (More than one answer may be correct.)

Selected Answers:

For the transfer function $G(s) = \frac{N(s)}{D(s)}$, the characteristic equation is $D(s) = 0$.

For the state-space system (A,B,C,D), the characteristic equation is $|sI - A| = 0$.

Question 3

1 out of 1 points

Which of the following statement(s) are correct? The characteristic equation is important because…

Selected Answers:

The poles of the transfer function are solved through the characteristic equation.

The poles of the transfer function determine the type of transient response.

Question 4

1 out of 1 points

Which of the following is the characteristic equation for the transfer function $G(s) = \frac{s(s+2)}{s^2+2s+2}$?

Selected Answer:

$s^2 + 2s + 2 = 0$

Wednesday, September 30, 2020 11:09:48 AM MDT

← OK